

REMARKS

The present application was filed on October 12, 2001 with claims 1-18. Claims 1, 7, 13, 15 and 17 are the independent claims.

In the outstanding final Office Action, the Examiner: (i) rejects claims 1-3 and 7-18 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,529,954 to Cookmeyer, II et al. (hereinafter Cookmeyer); and (ii) rejects claims 4-6 under 35 U.S.C. §103(a) as being unpatentable over Cookmeyer in view of U.S. Patent Publication No. 2002/0073195 to Hellerstein et al. (hereinafter “Hellerstein”).

In this response, Applicants: (i) amend independent claims 1, 7, 13, 15 and 17; and (ii) respectfully traverse the §102(e) and §103(a) rejections for at least the following reasons.

As pointed out in Applicants previous response, the present invention is directed to, for example, as recited in amended independent claim 7, a computer-based method of providing decision support to an analyst in accordance with an event management system which manages a network with one or more computing devices. The method comprises the steps of automatically analyzing, off-line, data representing past events associated with the network of computing devices being managed by the event management system, the automated off-line analysis comprising generation of one or more visualizations of one or more portions of the past event data and discovery of one or more patterns in the past event data, and automatically managing rules off-line, the automated off-line rule management comprising construction and validation of one or more rules formed in accordance with the automated off-line analysis of the past event data. Independent claims 1, 13, 15 and 17 recite similar limitations.

Thus, Applicants respectfully point out that the claimed invention provides the feature of a combined off-line automatic data analysis and off-line rule management methodology. That is, both data analysis and rule management are provided in a single automated off-line tool.

Further, as illustratively explained at page 4, lines 23-28, of the present specification, many benefits may be derived from use of the automated off-line techniques of the present invention. By way of a first example, expert analysts are made more productive by tools that automatically discover patterns that would require considerable manual effort. By way of a second example, less

experienced analysts are made more expert by using tools that automate rule construction so that the focus is on “rule critiquing” rather than “rule authoring.”

Nonetheless, Applicants have amended the independent claims to further clarify the subject matter of the claimed invention. More particularly, Applicants have amended said claims to recite that the step/operation of automatically managing rules off-line, which previously recited that automated off-line rule management comprises construction and validation of one or more rules formed in accordance with the automated off-line analysis of the past event data, is further comprised such that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data.

Despite the assertions in the final Office Action, Cookmeyer does not disclose a combined off-line automatic data analysis and off-line rule management methodology, as in the claimed invention. Applicants respectfully point out that the only “off-line” operation that Cookmeyer suggests is with regard to “expert analysis.” In fact, the only occurrences of the term “off-line” in Cookmeyer appear at column 5, line 44; column 5, line 58; column 5, line 62; column 21, line 46; and column 5, line 53, and in each occurrence, it is clear that the term “off-line” is used only in the context of “expert analysis” and not in the context of a combined automatic data analysis and rule management methodology, as in the claimed invention.

In fact, the Abstract of Cookmeyer explains the relationship between the so-called expert analysis and the rules. Therein, it is stated that the rule-based expert analysis system of Cookmeyer “allows the rules that are used in the analysis to be defined at run time, instead of fixed rules which are defined at design time and which use fixed threshold values” (underlining added for emphasis). Thus, any rules that Cookmeyer refers to are defined at run time (i.e., online) rather than at design time (i.e., offline). Hence, Cookmeyer does not disclose that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data, as in the claimed invention.

In an Advisory Action dated October 21, 2005, the Examiner states:

Cookmeyer clearly teaches that the rules-based expert analysis system for network includes a combination of algorithmic and heuristic rules (Abstract, l. 1-4); and the present invention [sic] a knowledge based expert analysis system includes a rules based inference engine comprising a plurality of algorithms...(Col. 3, l.17-21). This indicates both expert analysis and rule management are included in the expert system. Therefore, the term “off-line” used for expert system (col. 5, l.40-45) is including both expert analysis and rule management. As a conclusion, Cookmeyer provides both expert analysis and rule management in a single automated off-line expert system tool.

However, whether or not Cookmeyer mentions algorithmic and heuristic rules and whether or not Cookmeyer discloses a rule-based inference engine, this does not satisfy the limitations of the claimed invention. That is, whether or not one can suggest that Cookmeyer discloses rule management that is associated with some form of expert analysis, it is clear that Cookmeyer does not disclose that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data, as recited by the claimed invention. That is, there are no steps/operations disclosed in Cookmeyer for offline rule construction and offline rule validation that are based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data (again, underlining added for emphasis). Again, rules are handled in Cookmeyer at run time, not offline.

For at least the above reasons, Applicants respectfully assert that independent claims 1, 7, 13, 15 and 17 are patentable over the cited Cookmeyer reference. Also, it is asserted that the claims that respectively depend from such independent claims, namely, claims 2, 3, 8-12, 14, 16 and 18, are patentable over the cited Cookmeyer reference not only for the reasons given above, but also because such dependent claims recite separately-patentable subject matter in their own right.

Regarding the §103(a) rejection of claims 4-6, Applicants assert that, since Hellerstein fails to remedy the above-mentioned deficiencies of Cookmeyer, claims 4-6 are also patentable. Further, such dependent claims recite separately-patentable subject matter in their own right.

Still further, claims 4-6 are patentable since the combination of Cookmeyer and Hellerstein fails to satisfy Federal Circuit precedence.

More particularly, the Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” Id. at 1343-1344.

In the final Office Action at page 5, the Examiner provides the following statement to prove motivation to combine Cookmeyer and Hellerstein, with emphasis supplied: “[i]t would have been obvious to one ordinary skilled in the art at the time the invention was made to include the teachings of Hellerstein [with Cookmeyer] . . . to aid in finding patterns of interest . . .”

Applicants submit that this statement is based on the type of “subjective belief and unknown authority” that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, other than a lone citation to paragraph [0053] of Hellerstein, the Examiner fails to identify any objective evidence of record which supports the proposed combination.

In view of the above, Applicants believe that claims 1-18 are in condition for allowance, and respectfully request withdrawal of the §102(e) and §103(a) rejections.

Respectfully submitted,



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